Technology Safety Data Sheet

TECHNOLOGY SAFETY DATA SHEET
Bosch Rotary Hammer Drill
Paint Scaler

Section 1: Technology Identity		
Manufacturer's Name and Address:	Emergency Contact:	
SB Power Tool Company 4300 West Peterson Ave. Chicago IL 60646	John Madden Tel: (773) 481-7642 john_madden@sbpt.com	
Other Names:	Information Contact:	
Bosch 1125VSRH Paint Scaler-Bosch Rotary Hammer Drill	John Madden Tel: (773) 481-7642 john_madden@sbpt.com	
Date Prepared:	Prepared by:	Tech ID
1/16/02	Operating Engineers National Hazmat Program	2952

Section 2: Process Description

The Bosch 11225VSRH is a 24-Volt, battery operated, ¾-inch rotary hammer drill. When used with an optional chipping adapter, the Bosch rotary hammer drill can be used to perform chipping and chiseling tasks such as paint removal from either concrete or metal surfaces. It is compact, lightweight (9 lb.), and has an ergonomically balanced grip. The unit is small and light enough that it can easily be operated at waist level, at chest height, and shoulder level. Since it is battery operated, it gives the operator more flexibility during sampling activities than an electric or air powered paint scaler would allow.

A variety of bits can be used with this unit. Chisels that may be used on almost any surface are available. The chisels vary in length, width, and shape.

The unit has a battery gauge that displays five stages of charge levels. It illuminates with the tool on or off. The advanced charger provides full charge and extends battery life. It comes with a 3 amp-hour, interchangeable battery and can be recharged in approximately 26 minutes. The vendor states that approximately 155 holes (¼-inch diameter X 1 ½ inch deep) can be drilled into average strength concrete with one battery change. Extra battery packs can be purchased to minimize down time.

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Section 3: Technology Diagrams or Pictures

Bosch Rotary Drill pictured with chipping adapter and chisel attached. The battery is in the battery charger also pictured.

The operator supports the drill while scaling a concrete surface.

Section 4: Safety Hazards

Hazard Category:

4- Could result in death or permanent total disability

3- Could result in permanent partial disability or injuries or occupational illness that may result in hospitalization of at least three persons

2- Could result in injury or occupational illness resulting in one or more lost work days

1- Could result in injury or illness not resulting in a lost work day

A. Buried Utilities, Drums, and Tanks	Hazard Rating: N/A
Not applicable to this technology.	
B. Chemical (Reactive, Corrosive, Pyrophoric, etc.)	Hazard Rating: 1
The battery is sealed and the technology does not create any chemicals. Only site-specific concerns are present.	

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Section 4: Safety Hazards (continued)	
C. Confined Space	Hazard Rating: N/A
Not applicable to this technology.	
D. Electrical	Hazard Rating: 1
The technology is battery powered.	
E. Ergonomic	Hazard Rating: 2
• Prolonged force is required to operate the trigger mechanism. • Static positions supporting the weight of the drill are sometimes required while collecting samples.	
F. Explosives	Hazard Rating: 2
Users should ensure the atmosphere is not explosive before collecting samples. The metal chipping attachment used on the right surface may spark creating an ignition source.	
G. Fire Protection	Hazard Rating: N/A
Not applicable to this technology.	
H. Gas Cylinders	Hazard Rating: N/A
Not applicable to this technology.	
I. Ladders and Platforms	Hazard Rating: 1
The technology does not require the use of a ladder or platform although it is feasible the technology will be used on a ladder or platform.	
J. Lockout/Tagout	Hazard Rating: 1
The drill is battery powered. Effective lockout is achieved by removing the battery.	
K. Mechanical Hazards	Hazard Rating: 1
The chipping attachment moves back and forth, possibly getting caught in loose clothing or any other loose or hanging items.	
L. Moving Vehicles	Hazard Rating: N/A
Not applicable to this technology.	
M. Overhead Hazards	Hazard Rating: N/A
Not applicable to this technology.	

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Section 4: Safety Hazards (continued)	
N. Pressure Hazards	Hazard Rating: N/A
Not applicable to this technology.	
O. Slips/Trips/Falls	Hazard Rating: N/A
The technology does not create any slip, trip, or fall hazards. Proper housekeeping measures should be in place.	
P. Suspended Loads	Hazard Rating: N/A
Not applicable to this technology.	
Q. Trenching and Excavation	Hazard Rating: N/A
Not applicable to this technology.	
Section 5: Health Hazards	
A. Inhalation	Hazard Rating: 3
• Site-specific hazard analysis will have to be conducted. The Bosch drill does created dust during operation on concrete surfaces. • The appropriate respirator should be worn.	
B. Skin Absorption	Hazard Rating: N/A
This technology does not create any skin absorption hazards. Site specific hazards should be taken into consideration.	
C. Noise	Hazard Rating: 3
The Bosch drill is above the action level of 85 dBA and will require a hearing conservation program including the use of PPE.	
D. Heat Stress	Hazard Rating: 2
The operation of the Bosch drill is physically demanding and will be compounded by PPE and ambient conditions.	
E. Ergonomic	Hazard Rating: 2
• Prolonged force is required to operate the trigger mechanism. • Static positions supporting the weight of the drill are sometimes required while collecting samples.	
F. Ionizing Radiation	Hazard Rating: N/A
Not applicable to this technology.	

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Section 5: Health Hazards (continued)	
G. Non-ionizing Radiation	Hazard Rating: N/A
Not applicable to this technology.	
H. Biological Hazards	Hazard Rating: N/A
Not applicable to this technology.	
Section 6: Phase Analysis	
A. Construction/Start-up	
• Improperly using the charger or using a damaged battery/ charger may result in electrical shock. • Failure to lubricate the drill and chipping attachment may result in the drill overheating • Properly installing handle, chipping attachment, and battery are imperative for safe operation.	
B. Operation	
• During operation proper PPE is required. Flying debris will be present so eye protection is imperative. • The type of respiratory protection required will depend on the surface being worked on, surface contamination, and the environment being worked in. • Hearing protection will be required as the Bosch exceeds the OSHA action level of 85 dBA; this level will increase or decrease depending the surface being worked on. • Ergonomic concerns include vibration, trigger activation, and static positions during operation. Operators should limit the time they remain in a fixed position with the Bosch activated; this will limit the effects of the vibration and provide the operator a break from the static position. • Operators should be conscious of where the chipping attachment is at all times, guarding against contact with the attachment.	

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Section 6: Phase Analysis (continued)

C. Maintenance (Emergency and Routine)

- Operators should only use the proper charger when recharging the battery and ensure the battery and charger is not damaged.
- Operators should ensure the battery, chipping attachment, and the handle are properly removed or reattached during maintenance.
- Operators should allow the chipping attachment to cool before removal.

D. Shutdown (Emergency and Routine)

Shutdown of the Bosch Rotary Hammer Drill for both emergency and routine procedures is simple: release the trigger and disconnect the battery.

E. Decontamination/Decommissioning

- Operators should disassemble each component and ensure each is properly cleaned to avoid contamination.
- Allow chipping attachment to cool before removing or cleaning.

Section 7: Worker Protection Measures

A. Exposure Monitoring

- The Bosch does not create a need for air monitoring. The type of samples taken will determine what exposure monitoring should be conducted, for example concrete dust as opposed to paint strips.

B. Worker Training

The following topics should be covered:

- Technology specific training including the use of hand tools
- Hazard Communication
- Hearing conservation
- OSHA construction outreach with emphasis on ergonomics
- Respiratory Protection
- Proper use of Personal Protective Equipment

C. Medical Surveillance

A Hearing Conservation Program that includes annual audiograms will be required.

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Section 7: Worker Protection Measures (continued)

D. Engineering Controls

- Add a locking trigger mechanism so constant pressure is not required.
- Use a break away, shoulder harness to suspend the load of the drill during operation.

E. Administrative Controls

The Bosch Rotary Hammer Drill will not require administrative controls other than those that should already be in place with regard to the working environment.

F. Personal Protective Equipment

- Hearing protection
- Respiratory protection
- Safety glasses with side shields
- Safety shoes
- Gloves
- Hard hat

SECTION 9: COMMENTS AND SPECIAL CONSIDERATIONS

The Bosch Rotary Hammer Drill is designed for use on a variety of different surfaces and for collecting a number of different types of samples. Consideration should be given to all variables before using the technology including, but not limited to, surface, type of material, and the environment.